

CLAIMS

1 1. Method for transmitting and processing digital data in a mobile
2 telephone network, said network comprising at least one unit of mobile equipment and
3 a remote server comprising information processing and data storage means,
4 communicating with one another via said mobile telephone network, said mobile
5 equipment cooperating with an embedded microchip system comprising information
6 processing and data storage means designed to store at least some pieces of software
7 capable both of controlling said mobile equipment by sending given commands and of
8 reacting to events issuing from this equipment by executing instructions associated
9 with said events, in order to perform functionalities associated with at least one
10 predetermined application, characterized in that it includes the implementation of at
11 least a first particular piece of software (21) of a so-called reporter type, stored in said
12 data storage means of said embedded microchip system (2 – 20), and the
13 implementation of a least one associated piece of software (30M) stored in said data
14 storage means of one of said remote servers (3), in that said piece of software of the
15 reporter type (21) retransmits to said associated piece of software (30M) data
16 characteristic of said events received from said mobile equipment (1 – 10) and in that
17 said associated piece of software (30M) executes, using said information processing
18 means of said remote server (3), upon reception of said characteristic data, all or some
19 of said instructions associated with one of said predetermined applications, and
20 retransmits results of said execution to said mobile equipment (1 – 10) and/or to said
21 embedded microchip system (2 – 20).

1 2. Method according to claim 1, characterized in that said
2 embedded microchip system (2 – 20) being under the control of a given operating
3 system, said associated piece of software (30M) implemented in one of said remote
4 servers (3) transmits said execution results in the form of commands sent directly to
5 said operating system in order to perform a given operation and in that results of this
6 operation are retransmitted to said associated piece of software (30M).

1 3. Method according to claim 1, characterized in that, said
2 associated pieces of software (30M) implemented in said remote servers (3) being of a

3 so-called master type, it includes the implementation of at least one second particular
 4 piece of software (22) of a so-called slave type, stored in said storage means of said
 5 embedded microchip system (2 - 20), in that each of said pieces of software of the
 6 slave type (22) receives commands from one of said pieces of software of the master
 7 type (30M) that is associated with it, and executes said commands using said
 8 information processing means of said embedded microchip system (2 - 20), and in
 9 that said piece of software of the slave type (22) retransmits results of said execution
 10 of commands to said associated piece of software of the master type (30M).

1 4. Method according to claim 3, characterized in that said pieces
 2 of software of the reporter (21) and/or slave (22) types are associated with an
 3 additional functionality of a so-called autonomous type, so that these pieces of
 4 software (21, 22) can execute directly in said embedded microchip system (2 - 20) a
 5 pre-established part of said predetermined applications.

1 5. Method according to claim 4, characterized in that said mobile
 2 telephone network complies with the standard known as GSM and said pieces of
 3 software comply with the GSM 11.14 standard.

1 6. Method according to claim 1, characterized in that, said
 2 telephone network comprising at least two distinct transmission channels, a so-called
 3 voice data channel and a so-called message channel, said transmitted digital data is
 4 constituted by messages of a so-called short type comprising 140 octets or 160 septets
 5 transmitted through this message channel.

1 7. Embedded system equipped with a microchip comprising
 2 information processing and data storage means designed to store at least some pieces
 3 of software capable both of controlling said mobile equipment by sending given
 4 commands and of reacting to events issuing from this equipment by executing
 5 instructions associated with said events, in order to perform functionalities associated
 6 with at least one predetermined application, said embedded microchip system
 7 cooperating with a unit of mobile equipment linked to a mobile telephone network,
 8 said mobile telephone network being connected with at least one remote server

9 comprising information processing and data storage means communicating with said
 10 mobile equipment via said mobile telephone network, characterized in that said
 11 embedded microchip system (2 -20) stores in its said data storage means at least a first
 12 particular piece of software (21) of a so-called reporter type, designed to retransmit to
 13 an associated piece of software (30M) stored in said data storage means of one of said
 14 remote servers (3) that is associated with it, data characteristic of said events received
 15 from said mobile equipment (1 - 10), so that said associated piece of software (30M)
 16 executes, using said information processing means of said remote server (3), upon
 17 reception of said characteristic data, all or some of said instructions associated with
 18 one of said predetermined applications, and to retransmit results of said execution to
 19 said mobile equipment (1 - 10) and/or to said embedded microchip system (2 - 20).

1 8. Embedded microchip system according to claim 7,
 2 characterized in that, said associated pieces of software (30M) implemented in said
 3 remote servers (3) being of a so-called master type, it stores in its said data storage
 4 means at least one second particular piece of software (22) of a so-called slave type,
 5 designed to receive commands from one of said pieces of software of the master type
 6 (30M) that is associated with it, to execute said commands using said information
 7 processing means of said embedded microchip system (2 - 20) and to retransmit
 8 results of said execution of commands to said associated piece of software of the
 9 master type (30M).

1 9. Embedded microchip system according to claim 8,
 2 characterized in that said pieces of software of the reporter (21) and/or slave (22)
 3 types are associated with an additional, so-called autonomous functionality, so that
 4 these pieces of software can execute directly in said embedded microchip system (2 -
 5 20) a pre-established part of said predetermined applications.

1 10. Embedded microchip system characterized in that it is
 2 constituted by a smart card of the so-called SIM type (2).